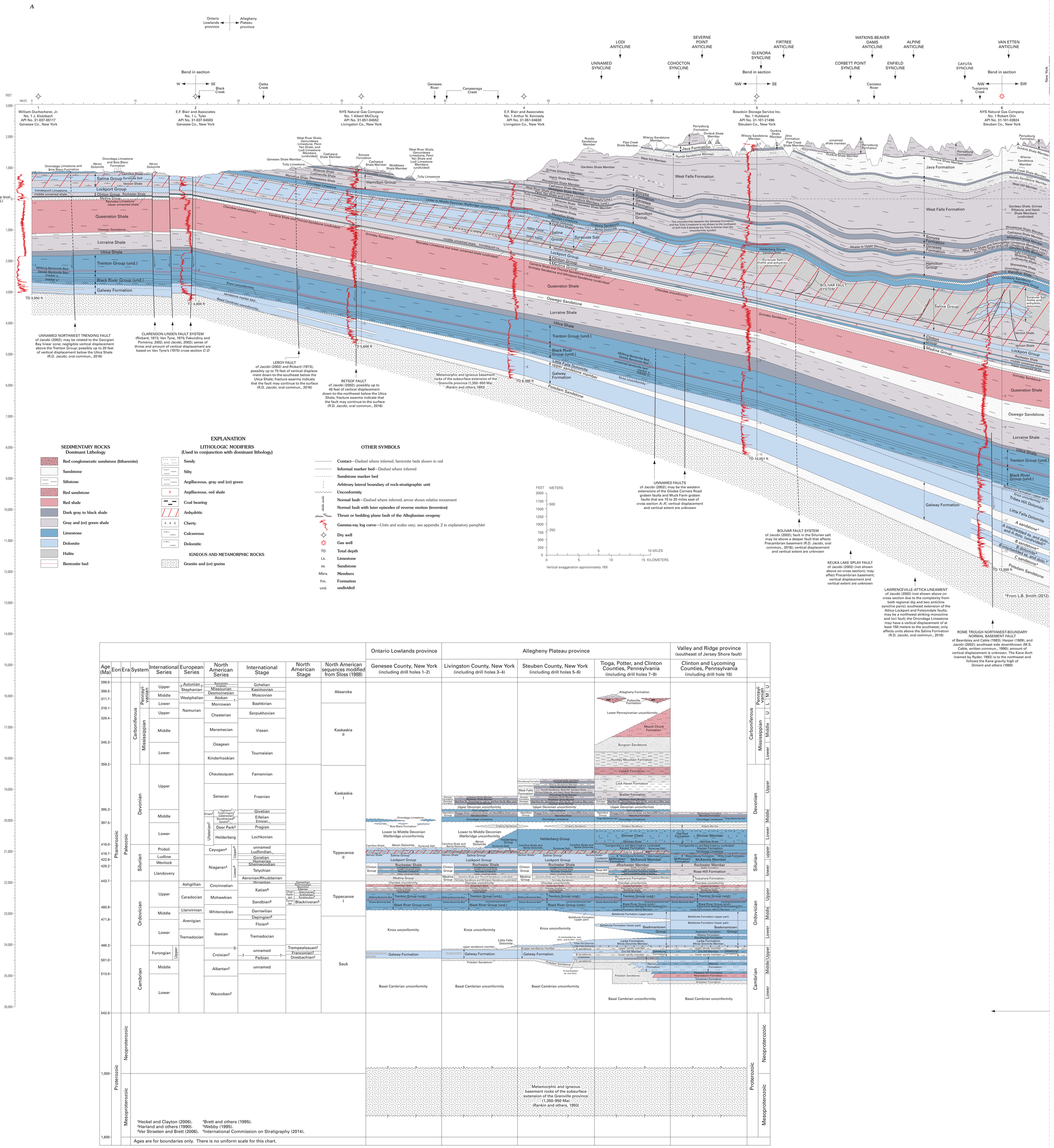

EXPLANATION

SEDIMENTARY ROCKS
Dominant Lithology

- Red conglomeratic sandstone (litharenite)
- Sandstone
- Siltstone
- Red sandstone
- Red shale
- Dark gray to black shale
- Gray and (or) green shale
- Limestone
- Dolomite
- Halite
- Bentonite bed

LITHOLOGIC MODIFIERS
(Used in conjunction with dominant lithology)

- Sandy
- Silty
- Argillaceous, gray and (or) green
- Argillaceous, red shale
- Coal bearing
- Anhydritic
- Cherty
- Calcareous
- Dolomitic

IGNEOUS AND METAMORPHIC ROCKS

- Granite and (or) gneiss

OTHER SYMBOLS

- **Contact**—Dashed where inferred; bentonite beds shown in red
- **Informal marker bed**—Dashed where inferred
- **Sandstone marker bed**
- **Arbitrary lateral boundary of rock-stratigraphic unit**
- **Unconformity**
- **Normal fault**—Dashed where inferred; arrow shows relative movement
- **Normal fault with later episodes of reverse motion (inversion)**
- **Thrust or bedding plane fault of the Alleghanian orogeny**
- **Gamma-ray log curve**—Units and scales vary; see appendix 2 in explanatory pamphlet
- **Dry well**
- **Gas well**
- TD **Total depth**
- Ls. **Limestone**
- ss. **Sandstone**
- Mbrs. **Members**
- Fm. **Formation**
- und. **undivided**

[1]Heckel and Clayton (2006). [2]Harland and others (1990). [3]Ver Straeten and Brett (2006). [4]Brett and others (1995). [5]Webby (1995). [6]International Commission on Stratigraphy (2014).

Figure 3.—Correlation chart of Proterozoic and Paleozoic rocks along cross section ***A–A'*** in New York and Pennsylvania. Geologic time scale ages are from Gradstein and others (2004) except as noted. Abbreviations are as follows: **Fm.**, Formation; **L**, Lower; **Ls.**, Limestone; **M**, Middle; **Ma**, mega-annum (million years before present); **Mbrs.**, Members; **Sh.**, Shale; **U**, Upper; **und.**, undivided; **?**, unknown or questionable.

GEOLOGIC CROSS SECTION *A–A'* THROUGH THE APPALACHIAN BASIN FROM THE SOUTHERN MARGIN OF THE ONTARIO LOWLANDS PROVINCE, GENESEE COUNTY, WESTERN NEW YORK, TO THE VALLEY AND RIDGE PROVINCE, LYCOMING COUNTY, NORTH-CENTRAL PENNSYLVANIA

By

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